

COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

**Bay State Gas Company**

**D.T.E. 05-27**

ATTORNEY GENERAL'S FOURTEENTH SET OF  
DOCUMENT AND INFORMATION REQUESTS

Supplemental Instructions:

“BSG” shall mean the Company.

- AG-14-1      Refer to the Company’s responses to AG-2-35(c) and AG-2-39, which show a sharp reduction in the replacement of bare steel mains in the Brockton Service area from 1998 to 2002, the same area in the Company’s service territories that is now experiencing the accelerating leak rate. Explain why the Company permitted the replacement of bare steel mains in the Brockton area to decline at the same time leak rates in this area were increasing.
- AG-14-2      Refer to the Company’s response to DTE 3-11(d) and (e), page 2 of 2 on each attachment. Explain what leaks are classified under the category “Other” in Part C. Explain the cause of the increasing leak rate, from 683 in 2003 to 917 in 2004, in the “Other” category for Mains.
- AG-14-3      Refer to Exh. BSG/DGC-1, p. 17 of 63, lines 3-5. For each of the years 1995 to 2005, provide the average number of leaks per mile for unprotected steel in Brockton for the Company and the average number of leaks per mile for unprotected steel for the other regional LDCs. List the other regional LDCs by name. Define which communities are included in “Brockton” as that term is used in the cited section of the prefiled testimony.
- AG-14-4      Refer to Exh. BSG/DGC-1, p. 17 of 63, lines 7-8. Explain in detail how the Company determines which steel segments are most at risk and in need of replacement, including in this response any written Company documents that include this standard.

- AG-14-5 Refer to Exh. BSG/DGC-1, p. 17 of 63, lines 16-17. What is the Company's five year historic replacement rate? Did the Company set that rate pursuant to a preexisting replacement schedule or plan? If "yes", please provide a copy of the replacement schedule or plan and provide the date(s) when it was adopted and amended. When installed, what was the expected useful life of the unprotected steel that remains to be replaced? Include in your response the dates that this bare steel and the coated steel without cathodic protection was installed.
- AG-14-6 Produce all documents, including but not limited to reports, letters, memorandums and e-mails to, from and by Edward Collins concerning the Company's Steel Infrastructure Replacement program.
- AG-14-7 Produce and organize by category of document type all documents, including but not limited to reports, letters, memorandums and e-mails to, from and by Edward Collins concerning leaks in Company's distribution system from 1995 to 2005.
- AG-14-8 Produce and organize by category of document type all documents, including but not limited to reports, letters, memorandums and e-mails to, from and by Edward Collins concerning corrosion in Company's distribution system from 1995 to 2005.
- AG-14-9 Has the Company ever had a corrosion study of any type performed on its distribution system? If "yes," please produce a copy of that study or studies, along with all work papers, calculations and assumptions.
- AG-14-10 Has the Company ever had a leak study of any type performed on its distribution system? If yes, please produce a copy of that study or studies, all with all work papers, calculations and assumptions.
- AG-14-11 Has the Company ever contacted a corrosion or leak consultant (either a third party or employee of an affiliate with the appropriate expertise) regarding its distribution system? If "yes", identify the consultant or affiliate employee and produce all documents, including but not limited to reports, letters, memorandums and e-mails to, from and by the consultant or employee of an affiliate concerning the Company's distribution system.
- AG-14-12 Has the Company ever received any oral advice or an oral opinion from a consultant or affiliate employee identified in the responses to AG-14-11? If "yes", explain the advice or opinion in detail and provide any notes from conversations with the consultant or affiliate employee.
- AG-14-13 Has the Company ever performed any analyses or review of the causes of leaks to its distribution system? If "yes", produce and organize by category of document

type all documents related to the analyses or review.

- AG-14-14 Refer to the Company's response to AG-2-16(a), p. 9 of 23. Is the Company aware of root cause of its increasing corrosion leak rate in the Brockton service area? If "yes", explain the root cause of the increasing corrosion leak rate. Identify and produce all reports, analyses, memos or other documents that address the cause of the increasing leak rate.
- AG-14-15 Refer to the Company's response to AG-2-16(a), p. 9 of 23 and AG-2-16(b), p. 4 of 34. In order to reduce the number of leaks on bare steel mains, should the Company have increased its rate of replacement of bare steel mains from 1993 to 2003 in the Brockton Service area? Does Ed Anderson of R.J. Rudden Associates agree with the Company's response?
- AG-14-16 Refer to the Company's response to AG-2-16(a), p. 9 of 23 and make the following two alterations and then re-plot the graph:
- A) Disaggregate the "miles of mains" data to show miles of bare steel and miles of coated steel without cathodic protection as separate figures.
  - B) Disaggregate the "corrosion leaks per mile" data to show corrosion leaks per mile for bare steel and corrosion leaks per mile for coated steel without cathodic protection as separate figures.
- Did Ed Anderson of R.J. Rudden Associates examine the data as presented in the redrawn graph?
- AG-14-17 Refer to the Company's response to AG-2-16(a), p. 22 of 23. Produce a copy of the referenced text, Peabody's "Control of Pipeline Corrosion" relied upon for the reference in footnote 9.
- AG-14-18 Refer to the Company's response to AG-2-16(a), p. 3 of 23. Did Ed Anderson of R.J. Rudden Associates consider any other measure of utility performance besides the "Leak Backlog / Repair Ratio" in drawing the conclusion that the Company has demonstrated excellent leak management? If "yes", explain what other information was considered and the conclusions reached. Include in this answer all other generally accepted methods of corrosion control in the gas distribution industry.
- AG-14-19 Refer to the Company's response to AG-2-16(a), p. 3 of 34 and the following statements in the report by R.J. Rudden Associates:

Based on interviews conducted with BSG personnel, as well as the

accounting, engineering and reporting materials reviewed by Rudden, it appears that BSG has followed a prudent schedule of mains and services replacement, and has operated, monitored and maintained the existing system in a manner consistent with acceptable utility practices. Notwithstanding the application of good practices, the number of leaks has been increasing rapidly in recent years.

- 1) Identify all BSG personnel interviewed and produce copies of all notes from these interviews;
- 2) Produce copies of all accounting, engineering and reporting material reviewed;
- 3) State all facts, with reference to any supporting industry authorities, that support the conclusion that BSG followed a prudent schedule of mains and services replacement;
- 4) State all facts, with reference to any supporting industry authorities, that BSG operated, monitored and maintained the existing system in a manner consistent with acceptable utility practices;
- 5) State all facts, with reference to any supporting industry authorities, that BSG applied good practices;
- 6) Produce all documents from Health Consultants and summarize any oral opinions offered in connection with BSG.

AG-14-20      Refer to the Company's response to AG-2-16(a), p. 3 of 34, and the responses to AG-2-35(c) and AG-2-39. After reviewing this material does R.J. Rudden Associates change any of its conclusions and opinions? If "yes", explain those changes.

AG-14-21      Refer to the Company's June 3, 2005, letter on the status of discovery responses to the Department with the Company's response to DTE 3-11(a) and (e). In the letter the Company claimed it does not differentiate causes of pipe leaks ( "Bay State does mark leaks on its maps. To the extent a leak occurs on a steel pipe, it is assumed, based on Bay State's operational experience, that the cause is corrosion."), yet it reports six different types of leaks on its annual DOT reports. Explain how if the Company does not distinguish different types of leaks on its maps, it can accurately report different types of leaks to the DOT.

- AG-14-22 Refer to the Company's June 3, 2005, letter on the status of discovery responses. Does the Company create any reports, memos or analyses based on the "dossiers" and / or "main write-ups"? If "yes", identify and produce these documents.
- AG-14-23 Refer to the Company's June 3, 2005, letter on the status of discovery responses. Produce copies of all soil resistivity tests conducted by the Company.
- AG-14-24 Refer to the Company's June 3, 2005, letter on the status of discovery responses and the sentence "A broad 'system' analysis envisioned by the Attorney General would not result in anything actionable by the Company." Produce all facts and other information to support the conclusion that a corrosion study of the Company's distribution system would not: A) assist in the development of a monitoring, repair and replacement program for the Company's distribution system, and B) determine the root cause of the Company's accelerating leak rate.
- AG-14-25 Refer to the Company's response to AG-2-16(a), p. 12 of 34. When did the BSG staff complete its "system review and retrofitted all UPCS pipe in a condition suitable for cathodic protection"? Produce copies of all reports and other documents related to the system review and indicated how many miles of UPCS were retrofitted with cathodic protection, and how many miles were determined not to be good candidates for retrofitting. What were the "other conditions" that prevented effective or cost justified cathodic protection?
- AG-14-26 Refer to the Company's response to AG-2-16(a), p. 12 of 34. If "BSG's maintenance and replacement of older piping has been consistent with these general industry practices," how does R.J. Rudden Associates explain the accelerating leak rate in the Brockton Service area?
- AG-14-27 Refer to the Company's response to AG-2-16(a), p. 12 of 34. Will a sample of an unprotected steel pipe shows signs of corrosion before the corrosion develops into a detectable leak? If "yes", explain how the Company failed to monitor its samples of unprotected steel pipe and develop a replacement schedule based on the results of pipe sample testing.
- AG-14-28 Refer to the Company's response to AG-2-16(a), p. 28 of 34. What year in the 1980s did BSG start to replace its "unprotected steel pipes." Why did BSG select this year to start a replacement program? Provide copies of all reports, studies, analyses, memos and other documents which lead BSG to commence replacement of its unprotected steel.
- AG-14-29 Refer to the Company's response to AG-2-16(a), p. 28 of 34. What year did BSG start to replace its bare steel mains. Why did BSG select this year to start a

replacement program? Provide copies of all reports, studies, analyses, memos and other documents which lead BSG to commence replacement of its unprotected steel. When did BSG first become aware that bare steel would experience corrosion problems.

AG-14-30 Refer to the Company's response to AG-2-16(a), p. 28 of 34. What year did BSG start to replace its coated steel without cathodic protection? Why did BSG select this year to start a replacement program? Provide copies of all reports, studies, analyses, memos and other documents which lead BSG to commence replacement of its coated steel without cathodic protection.

AG-14-31 Refer to the Company's response to AG-2-16(a), p. 28 of 34. Does the BSG leak detection system consider changes in corrosion rates as indicated by pipe sample testing? If "yes", explain how in complete detail.

Date: June 6, 2005